

Data collection includes the recruitment and training of interviewers as well as the actual collection of data. Interviewer training and data collection may be the most neglected and often least organized of the efforts in the survey project. Well-trained interviewers, using methods designed to enhance respondent interest in the survey, are more likely to obtain accurate responses from sample members and will often operate more efficiently in completing their work. The success of mail surveys is particularly dependent upon the "packaging" of the questionnaire in a pleasing and interesting manner.

Editing and coding of the questionnaire are necessary steps in ensuring that answers have been properly entered on the questionnaire form and are converted to codes that can be entered into a computer. Only on those rare occasions in which the size of the study is very limited (less than 25 respondents) and the need for subgroup analysis is minimal would the time and expense of computer processing outweigh the advantages of computer tabulation over hand tabulation.

Preparation for analysis includes a variety of steps like keypunching data, performing range and consistency checks on the responses, and weighting the data to reflect the method of sampling and limitations of the survey (e.g., nonresponse and incomplete sample coverage).

Analysis and report writing vary considerably by the sophistication of the researcher and the audience, as well as by the demands of the research question. For example, simple graphs or descriptive charts are often sufficient to confirm expected relationships, while complex regression analysis may be needed to establish those which are less obvious. Successfully meeting analysis goals always requires that the research question of the study be identified during the planning stage.

Questionnaire Design

The successful completion of a survey is the culmination of efforts in each of the seven stages listed above. The science of survey sampling has been advanced to the point that appropriate sampling strategies have been identified for most survey settings. Procedures for data collection, coding, editing, and analysis, although still the object of investigation by survey methodologists, are also rather well established.

Questionnaire design, the remaining stage, is the area that may be among the most amenable to improvement in many survey designs. Thus the remainder of this report will present guidelines for the construction of a survey questionnaire.

Writing questions is probably one of the least precise aspects of survey design. Whereas many books have been published that provide a "cookbook" approach to other aspects of the survey process, question writing, at best, is dealt with by vague prescriptions and recommendations of structure. Given the variety of subject matter encountered in survey research, researcher discretion remains the most important input to questionnaire design. This section will highlight some problematic areas of question writing and suggest alternatives for overcoming them.

Dillman (2) suggests that the writing of questions can be divided into three decisions: 1) What type of information is sought? 2) What question structure is most effective in gathering the information? 3) What is the choice of words for the question?

Types of Questions

Initially, each researcher must consider what type of information is needed from a particular question. Most questions address the following information types: attitudes, beliefs, behavior, and attributes.

Attitudes are the dispositions, either favorable, unfavorable, or neutral, that individuals hold towards "attitude objects". These objects may be highly charged concepts such as abortions, or less intense concepts such as the election of state judges.

Example 1: Questions Designed to Elicit Attitudes

Q1.1 In general how do you feel about the Equal Rights Amendment? Do you strongly favor, somewhat favor, somewhat oppose, or strongly oppose the amendment?

1. Strongly favor 1
2. Somewhat favor 2
3. Somewhat oppose 3
4. Strongly oppose 4
5. No opinion 5

Q1.2 Should organized prayer be allowed in public schools?

1. Yes 1
 2. No 2
 3. Don't know . . . 3
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